IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re l	U.S. Patent Application of)
TAKA	AHASHI et al.)))
Applio	cation Number: To be Assigned)) `
Filed:	Concurrently Herewith)) `
For:	MAGNETIC SENSOR AND MAGNETIC HEAD WITH THE MAGNETIC SENSOR)))
ATTO	RNEV DOCKET NO HIR A 0149) \

Honorable Assistant Commissioner for Patents Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, this Information Disclosure Statement is submitted in the above-identified patent application. A listing of documents to be published on the face of any patent granted from this application is submitted herewith on Form PTO-1449. Any other documents or information submitted for consideration by the Examiner are listed in this paper. A copy of each U.S. and foreign patent, or each publication or portion thereof listed or herein identified, submitted herewith.

This Information Disclosure Statement is submitted with the initial filing of the application. Accordingly, no fee is due or payable at this time.

The Examiner is requested to acknowledge consideration of the information provided in this paper in accordance with prescribed procedures.

Please charge any additional fees or credit any overpayments in connection with this paper to Deposit Account No. 08-1480.

Respectfully submitted,

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May 20, 2004

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U.S. Department of Commerce Patent and Trademark Office	APPLICANT Takahashi et al.			
Information Disclosure Statement by Applicant	FILING DATE Concurrently Herewith	GROUP		
	U.S. Patent Documents		<u></u>	

Examiner	DOCUMENT NUMBER	DATE	Name	CLA	SUBC	FILING DATE
Initial				SS .	LASS	

Foreign Patent Documents

Examiner	DOCUMENT NUMBER	FILING DATE	Country	CLASS	SUB- CLASS	Translation	
Initial						YES	No
	4-358310	11/28/91	Japan			Abstract	X
	. 2000-137906	4/2/99	Japan			Abstract	Х
	2001-168414	12/3/99	Japan			Abstract	Х
	2001-230471	11/22/2000	Japan `			Abstract	Х
	2002-190630	8/1/2001	Japan			Abstract	X
	03-154217	11/13/89	Japan			Abstract	X
	7-221363	2/1/94	Japan			Abstract	X
	11-509956 *	5/20/97	Japan				X
	WO 97/44781	5/20/97	PCT			X	·

Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)

Jedema et al., "Electrical Detection of Spin Precession in a Metallic Mesoscopic Spin Valve", 2002 Macmillan Magazines Ltd., Letters to Nature, pp. 713-716
C. Heide, "Effects of Spin Accumulation in Magnetic Multilayers", 2001 The American Physical Society, Physical Review B, Vol. 65, 05441, 17 pages
Liu et al., "Electric-Pulse-Induced Reversible Resistance Change Effect in Magnetoresistive Films", 2000 American Institute of Physics, Applied Physics Letters, Vol. 76, No. 19, pp. 2749-2751

Examiner	DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP 609; draw a line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

PTO1449

^{*} corresponds to WO 97/44781 patent listed above